

Main	Advanced	Security	Power	Boot	Info	Exit		
<p>Fujitsu LifeBook i Series BIOS Guide</p> <p>LifeBook Series: i Series Model Numbers: i-4187, i-4190 Document Date: 10/26/2000</p>		<table border="1"><thead><tr><th>Item Specific Help</th></tr></thead><tbody><tr><td><p>This document is designed to provide Fujitsu LifeBook developers and users with an understanding of the system's Basic Input-Output System (BIOS)</p></td></tr></tbody></table>					Item Specific Help	<p>This document is designed to provide Fujitsu LifeBook developers and users with an understanding of the system's Basic Input-Output System (BIOS)</p>
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F1 Help	↑↓ Select Item	-/Space Change Values	F9 Setup Defaults					
ESC Exit	↔ Select Menu	Enter Select ► Sub-Menu	F10 Save and Exit					

F U J I T S U P C C O R P O R A T I O N

i Series BIOS

BIOS SETUP UTILITY

The BIOS Setup Utility is a program that sets up the operating environment for your notebook. Your BIOS is set at the factory for normal operating conditions, therefore there is no need to set or change the BIOS environment to operate your notebook.

The BIOS Setup Utility configures:

- Device control feature parameters, such as changing I/O addresses and boot devices.
- System Data Security feature parameters, such as passwords.

Entering the BIOS Setup Utility

To enter the BIOS Setup Utility do the following:

1. Turn on or restart your notebook.
2. Press the [F2] key once the Fujitsu logo appears on the screen. This will open the main menu of the BIOS Setup Utility with the current settings displayed.
3. Press the [RIGHT ARROW] or [LEFT ARROW] key to scroll through the other setup menus to review or alter the current settings.

Navigating Through The Setup Utility

The BIOS setup utility consists of seven menus: Main, Advanced, Security, Power, Boot, Info, and Exit. This document explains each menu in turn, including all submenus and setup items.

The following procedures allow you to navigate the setup utility menus:

1. To select a menu, use the cursor keys: → , ← .
2. To select a field within a menu or a submenu, use the cursor keys: ↑ , ↓ .
3. To select the different values for each field, press the [Spacebar] or [+] to change to the next higher selection and [F5] or [-] to go to the next lower selection.

4. To activate a submenu press the [Enter] key.
5. To return to a menu from a submenu, press the [Esc] key.
6. To go to the Exit menu from any other menu, press the [Esc] key.



POINT

Selecting a field causes a help message about that field to be displayed on the right-hand side of the screen.



POINT

Pressing the Enter key with the highlight on a selection that is not a submenu or auto selection will cause a list of all options for that item to be displayed. Pressing the Enter key again will select the highlighted choice.

7. Pressing the [F9] key resets all items in the BIOS to the default values.
8. Pressing the [F10] key saves the current configuration and exits the BIOS Setup Utility. You will be asked to verify this selection before it is executed.
9. Pressing the [F1] key gives you a general help screen.

Entering the Setup Utility After a Configuration Change or System Failure

If there has been a change in the system configuration that does not agree with the parameter settings stored in your BIOS memory, or there is a failure in the system, the system beeps and/or displays an error message after the Power On Self Test (POST). If the failure is not too severe, it will give you the opportunity to modify the settings of the setup utility, as described in the following steps:

1. When you turn on or restart the computer there is a beep and/or the following message appears on the screen:
 Error message - please run SETUP program Press <F1> key to continue, <F2> to run SETUP

2. If an error message is displayed on the screen, and you want to continue with the boot process and start the operating system anyway, press the [F1] key.

**CAUTION**

If your notebook emits a series of beeps that sounds like a code and the display is blank, please refer to the Troubleshooting Section. The Troubleshooting Section includes a list of error messages and their meanings.

**POINT**

If your data security settings require it, you may be asked for a password before the operating system will be opened.

3. If an error message is displayed on the screen, and you want to enter the setup utility, press the [F2] key.
4. When the setup utility starts with a fault present, the system displays the following message:
Warning!
Error message
[Continue]
5. Press any key to enter the setup utility. The system will then display the Main Menu with current parameters values.

MAIN MENU – SETTING STANDARD SYSTEM PARAMETERS

The Main Menu allows you to set or view the current system parameters. Follow the instructions for Navigating Through The Setup Utility to make any changes. (See *Navigating Through The Setup Utility* on page 2 for more information.)

The following tables show the names of the menu fields for the Main menu and its submenus, all of the options for each field, the default settings and a description of

the field's function and any special information needed to help understand the field's use.

Note that actual drive labels shown may vary.



POINT

System Time and System Date can also be set from your operating system without using the setup utility. Use the calendar and time icon on your Windows Control panel or type time or date from the MS-DOS prompt.

PhoenixBIOS Setup Utility			
Main	Advanced	Security	Power Boot Info Exit
System Time: [02:34:56] System Date: [11/18/1999]		Item Specific Help Adjust calendar clock. <Tab>, <Shift-Tab>, or <Enter> selects field.	
▶ Primary Master [FUJITSU MHM2100AT- (PM)] ▶ Primary Slave [TOSHIBA DVD-ROM SD-C2402- (PS)]			
Language: [English (US)]			
F1 Help ↑↓ Select Item -/Space Change Values F9 Setup Defaults ESC Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit			

Figure 1. Main Menu

Table 1: Fields, Options and Defaults for the Main Menu

Note that the parameters listed below may differ, as determined by your system configuration.

Menu Field	Options	Default	Description
System Time:	—	—	Sets and displays the current time. Time is in a 24 hour format of hours:minutes:seconds with 2 digits for each. (HH:MM:SS). Example: 16:45:57. You may change each segment of the time separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.

Table 1: Fields, Options and Defaults for the Main Menu

Note that the parameters listed below may differ, as determined by your system configuration.

Menu Field	Options	Default	Description
System Date:	—	—	Sets and displays the current date. Date is in a month/day/year numeric format with 2 digits each for month and day and 4 digits for year. (MM/DD/YYYY) for example: 03/20/1998. You may change each segment of the date separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.
Primary Master:	<ul style="list-style-type: none"> ■ Selects Primary Master submenu 	The product # of the Hard Drive	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Primary Master submenu allowing additional device configuration options for this interface.
Primary Slave:	<ul style="list-style-type: none"> ■ Selects Primary Slave submenu 	The product # of the CD-ROM	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Primary Slave submenu allowing additional device configuration options for this interface.
Language:	<ul style="list-style-type: none"> ■ English (US) ■ Japanese (JP) 	[English (US)]	The default setting differs between the US/European and the Japanese model. Selects the display language for the BIOS.

Primary Master Submenu of the Main Menu

The Primary Master submenu identifies which ATA devices are installed.

Note that, although Auto is the default setting for this

submenu, the Hard Disk setting is illustrated, since it contains all of the menu fields.

Note that actual hard drive label shown may vary.

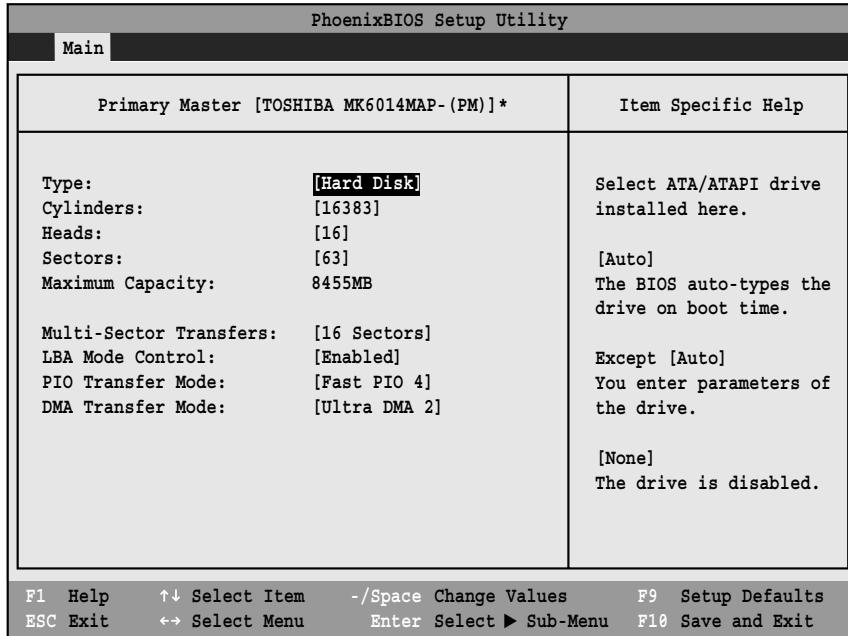


Figure 2. Primary Master Submenu

Table 2: Fields, Options and Defaults for the Primary Master Submenu of the Main Menu

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"> Auto None CD-ROM Hard Disk 	[Auto]	Selects the ATA/ATAPI device type. Select Auto to have the type automatically identified by the BIOS at POST. If None is selected, all of the following Set-up items do not appear. Select CD-ROM if a CD-ROM drive is installed at this connection. If Hard Disk is selected, you must specify the number of Cylinders, Heads, and Sectors for the drive.
Cylinders:	<ul style="list-style-type: none"> A number between 0 and 65,535 	—	This item appears only when Hard Disk is selected. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.
Heads:	<ul style="list-style-type: none"> A number between 1 and 16 	—	This item appears only when Hard Disk is selected. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.
Sectors:	<ul style="list-style-type: none"> A number between 0 and 63 	—	This item appears only when Hard Disk is selected. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.

Table 2: Fields, Options and Defaults for the Primary Master Submenu of the Main Menu

Menu Field	Options	Default	Description
Maximum Capacity:	<ul style="list-style-type: none"> Display only 	—	Displays the maximum capacity of the drive calculated from the parameters of the hard disk when Hard Disk is selected.
Multi-Sector Transfers:	<ul style="list-style-type: none"> Disabled 2 Sectors 4 Sectors 8 Sectors 16 Sectors 32 Sectors 64 Sectors 128 Sectors 	[16 Sectors]	This option cannot be changed when Auto is selected. Specify the number of sectors per block for multiple sector transfer. MAX refers to the size the disk returns when required.
LBA Mode Control:	<ul style="list-style-type: none"> Disabled Enabled 	[Enabled]	Enables or disables logical Block Addressing in place of Cylinder, Head, Sector addressing. This option cannot be changed when Auto is selected.
PIO Transfer Mode:	<ul style="list-style-type: none"> Standard Fast PIO 1 Fast PIO 2 Fast PIO 3 Fast PIO 4 	[Fast PIO 4]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected. Multi-word DMA is automatically set to mode 1 for Fast PIO 1, Fast PIO 2, Fast PIO 3, and set to mode 2 for Fast PIO 4 / DMA.
DMA Transfer Mode:	<ul style="list-style-type: none"> Disabled Multiword DMA 1 Multiword DMA 2 Ultra DMA 0 Ultra DMA 1 Ultra DMA 2 	[Ultra DMA 2]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected.

Primary Slave Submenu of the Main Menu

The Primary Slave submenu is for the internal CD-ROM drive. The drive type is displayed on this menu as well as the Main menu. Your notebook auto-senses the characteristics of the internal CD-ROM Drive installed.

Note that, although Auto is the default setting for this submenu, the Hard Disk setting is illustrated, since it contains all of the menu fields.

The actual hard drive label shown may vary.

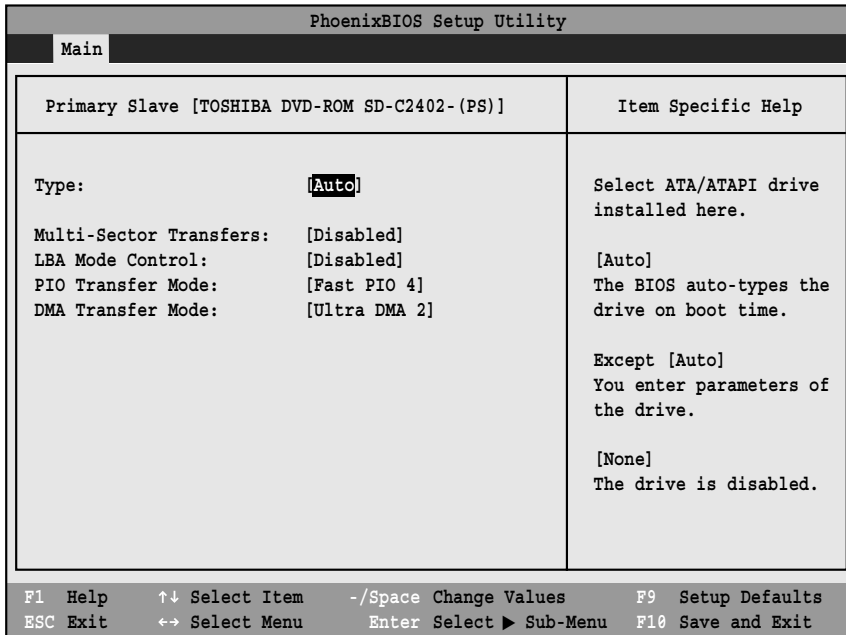


Figure 3. Primary Slave Submenu

Table 3: Fields, Options and Defaults for the Primary Slave Submenu of the Main Menu

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"> Auto None CD-ROM Hard Disk 	[Auto]	Selects the ATA/ATAPI device type. Select Auto to have the type automatically identified by the BIOS at POST. If None is selected, all of the following Set-up items do not appear. Select CD-ROM or Hard Disk for appropriate drive type installed at this connection.
Cylinders:	<ul style="list-style-type: none"> A number between 0 and 65,535 	—	This item appears only when Hard Disk is selected. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.
Heads:	<ul style="list-style-type: none"> A number between 1 and 16 	—	This item appears only when Hard Disk is selected. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.
Sectors:	<ul style="list-style-type: none"> A number between 0 and 63 	—	This item appears only when Hard Disk is selected. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.

Table 3: Fields, Options and Defaults for the Primary Slave Submenu of the Main Menu

Menu Field	Options	Default	Description
Maximum Capacity:	<ul style="list-style-type: none"> ▪ Display only 	—	Displays the maximum capacity of the drive calculated from the parameters of the hard disk when Hard Disk is selected.
Multi-Sector Transfers:	<ul style="list-style-type: none"> ▪ Disabled ▪ 2 Sectors ▪ 4 Sectors ▪ 8 Sectors ▪ 16 Sectors ▪ 32 Sectors ▪ 64 Sectors ▪ 128 Sectors 	[Disabled]	This option cannot be changed when Auto is selected. Specify the number of sectors per block for multiple sector transfer.
LBA Mode Control:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Disabled]	Enables or disables Logical Block Addressing in place of Cylinder, Head, Sector addressing. This option cannot be changed when Auto is selected.
PIO Transfer Mode:	<ul style="list-style-type: none"> ▪ Standard ▪ Fast PIO 1 ▪ Fast PIO 2 ▪ Fast PIO 3 ▪ Fast PIO 4 	[Fast PIO 4]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected. Multi-word DMA is automatically set to mode 1 for Fast PIO 1, Fast PIO 2, Fast PIO 3, and set to mode 2 for Fast PIO 4 / DMA.
DMA Transfer Mode:	<ul style="list-style-type: none"> ▪ Disabled ▪ Multiword DMA 1 ▪ Multiword DMA 2 ▪ Ultra DMA 0 ▪ Ultra DMA 1 ▪ Ultra DMA 2 	[Ultra DMA 2]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected.

Exiting from Main Menu

When you have finished setting the parameters on this menu, you can either exit from the setup utility, or move to another menu. If you wish to exit from the setup utility, press the [Esc] key or use the cursor keys to go to the Exit menu. If you wish to move to another menu, use the cursor keys.

ADVANCED MENU – SETTING DEVICE FEATURE CONTROLS

The Advanced Menu allows you to:

- Enable or disable support for Plug & Play operating systems.
- Set the features of the keyboard/mouse.
- Select between the display panel and an external CRT display.
- Enable or disable compensation for your display.
- Configure PCI devices in your system.
- Configures USB features.
- Configures DMI Event Logging.

Follow the instructions for Navigating Through the Setup Utility to make any changes.

(See *Navigating Through The Setup Utility* on page 2 for more information.)

The following tables show the names of the menu fields for the Advanced Menu and its submenus, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use.

Note that not all fields appear in all configurations; the fields that appear are dependent upon the system CPU.

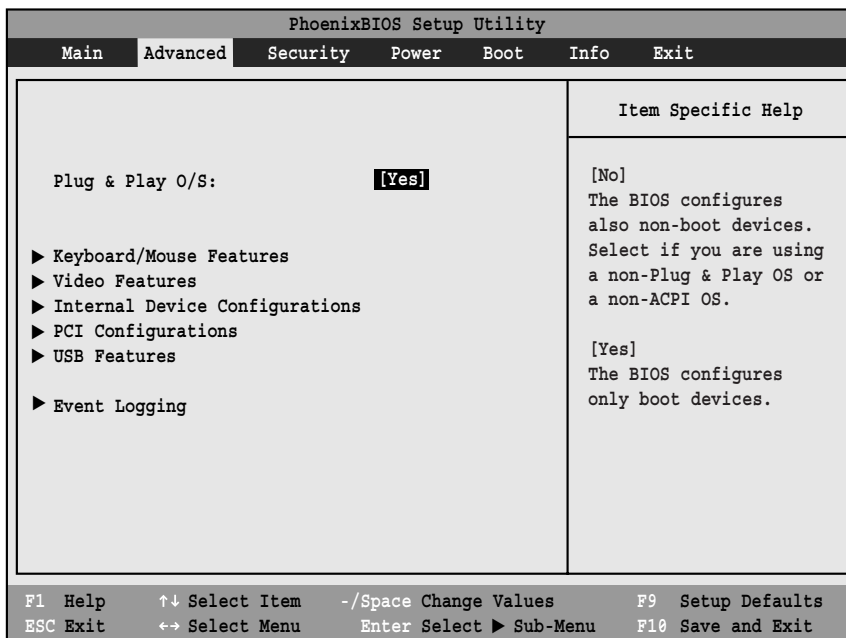


Figure 4. Advanced Menu

Table 4: Fields, Options and Defaults for the Advanced Menu

Menu Field	Options	Default	Description
Plug & Play O/S:	<ul style="list-style-type: none"> ■ Yes ■ No 	[Yes]	Select Yes if you are using a Plug & Play capable operating system. Select No if you need the BIOS to configure non-boot devices.
Keyboard/Mouse Features	—	—	When selected, opens the Keyboard/Mouse Features submenu, which allows setting external and internal keyboard and mouse parameters.
Video Features	—	—	When selected, opens the Video Features submenu, which allows setting of the display parameters, including routing of video signals to different displays.
Internal Device Configurations	—	—	When selected, opens the Internal Device Configuration submenu, which allows enabling or disabling the Floppy Disk and IDE Controllers.
PCI Configurations	—	—	When selected, opens additional menus to configure PCI devices.
USB Features	—	—	When selected, opens the USB Features submenu, which allows enabling or disabling of Legacy Floppy Emulation.
Event Logging	—	—	When selected, opens the event logging submenu.

Keyboard/Mouse Features Submenu of the Advanced Menu

The Keyboard/Mouse Features submenu is for setting the parameters of the integrated and external mouse and keyboard.

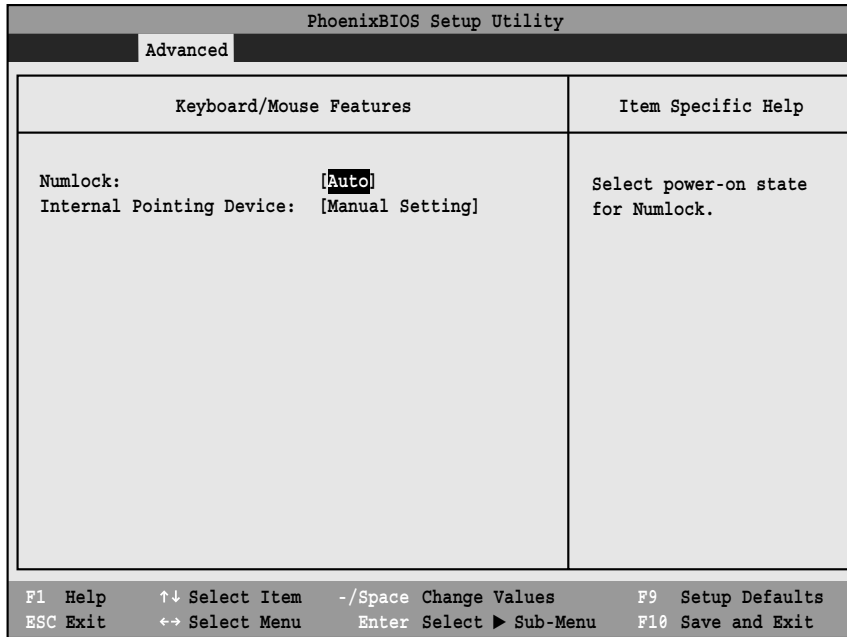


Figure 5. Keyboard/Mouse Features Submenu

Table 5: Fields, Options and Defaults for the Keyboard/Mouse Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Numlock:	<ul style="list-style-type: none"> Auto On Off 	[Auto]	Sets the NumLock function state when the computer completes booting.
Internal Pointing Device:	<ul style="list-style-type: none"> Manual Setting Always Enabled Always Disabled 	[Manual Setting]	Sets the device controlling the mouse cursor on the screen. Manual Setting allows the device to be enabled or disabled by a Hot Key. Always Enabled makes the pointing device always enabled whether there is an external mouse or not. Always Disabled makes the pointing device always disabled whether there is an external mouse or not.

Video Features Submenu of the Advanced Menu

The Video Features Submenu is for setting the display parameters.

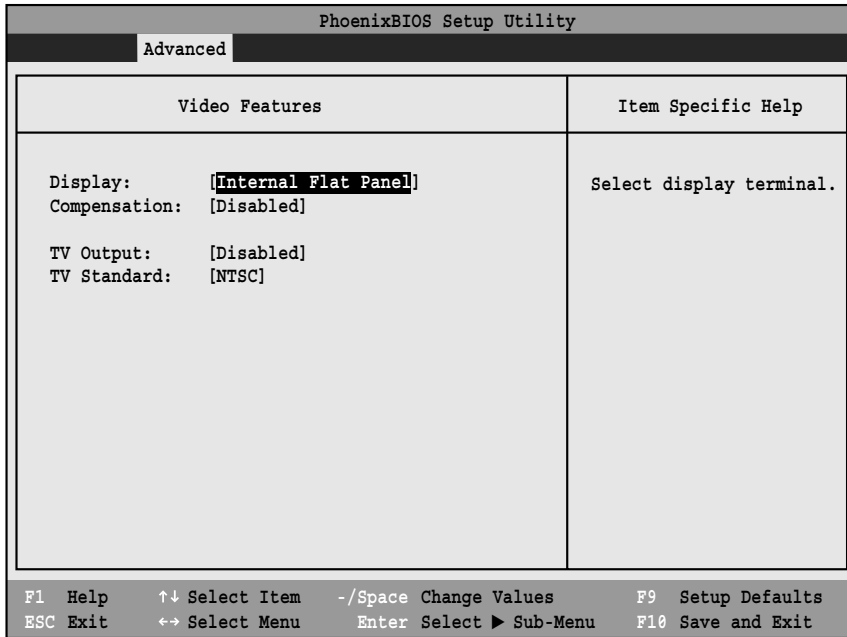


Figure 6. Video Features Submenu

Table 6: Fields, Options and Defaults for the Video Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Display:	<ul style="list-style-type: none"> Internal Flat Panel External Simultaneous 	[Internal Flat Panel]	Selects where the video signal will be routed.
Compensation:	<ul style="list-style-type: none"> Disabled Enabled 	[Disabled]	Enables or disables compensation which controls spacing on the display. When enabled, displays with less than pixel resolution 1024 x 768 or 800 x 600 will still cover the entire screen.
TV Output:	<ul style="list-style-type: none"> Disabled Enabled 	[Disabled]	Allows you to enable or disable TV output.
TV Standard:	<ul style="list-style-type: none"> NTSC PAL 	[NTSC]	Allows you to select a TV standard.

Internal Device Configurations Submenu of the Advanced Menu

The Internal Device Configurations submenu allows the user to configure the IDE Controller.

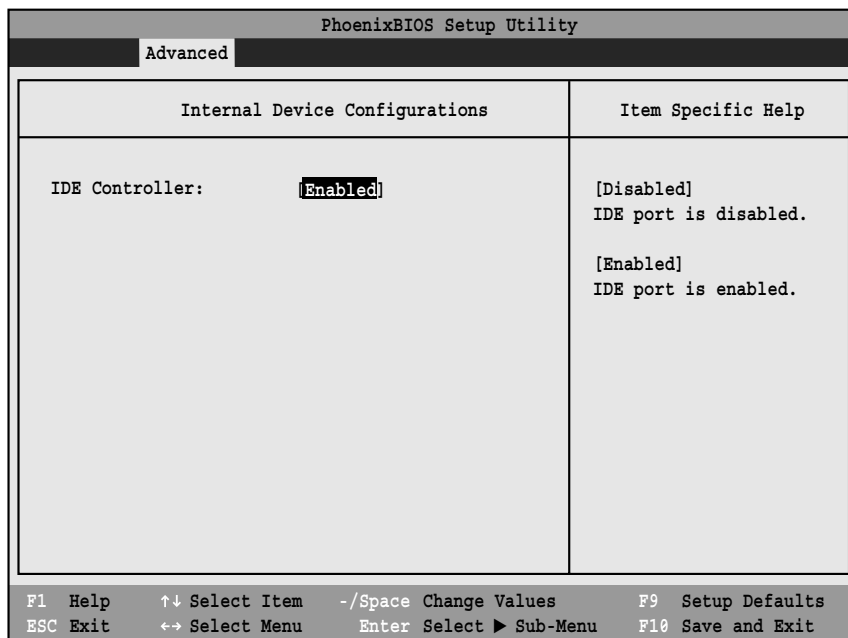


Figure 7. Internal Device Configurations Submenu

Table 7: Fields, Options and Defaults for the Internal Device Configurations Submenu of the Advanced Menu

Menu Field	Options	Default	Description
IDE Controller:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables IDE controller.

PCI Configurations Submenu of the Advanced Menu

The PCI Configurations submenu allows the user to reserve specific interrupts (IRQs) for legacy ISA devices, and to enable or disable built in PCI device modules.

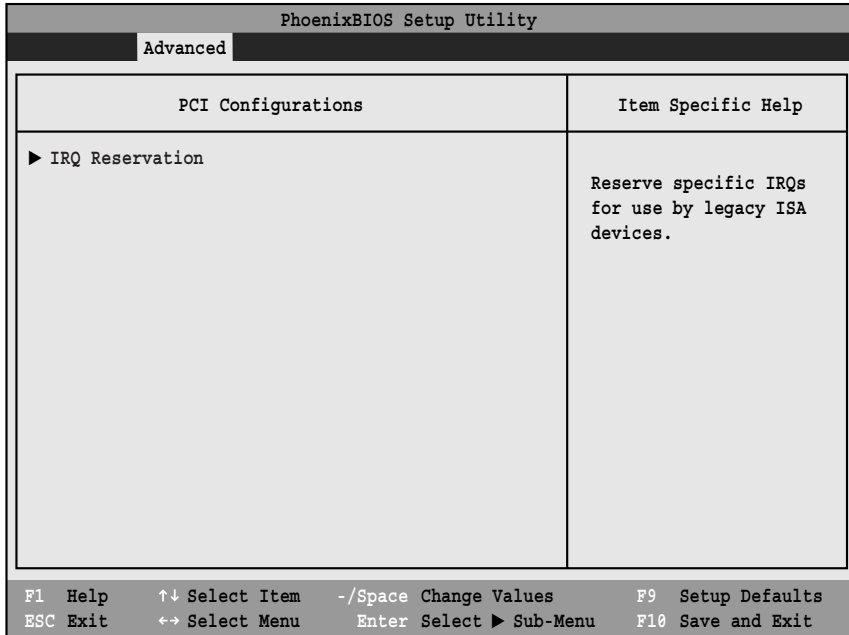


Figure 8. PCI Configurations Submenu

Table 8: Fields, Options and Defaults for the PCI Configurations Submenu of the Advanced Menu

Menu Field	Options	Default	Description
IRQ Reservation	—	—	Reserve specific IRQs for use by legacy ISA devices.

IRQ Reservation Submenu of the PCI Configurations Submenu

The IRQ Reservation submenu of the PCI Configurations submenu allows the user to mark various IRQs as reserved for use by legacy ISA devices. When an IRQ is reserved, the BIOS does not use it for embedded PCI or ISA devices.



CAUTION

Only IRQ's 9, 10, & 11 can be reserved without conflict.

PhoenixBIOS Setup Utility	
Advanced	
IRQ Reservation	Item Specific Help
IRQ 3: [Available]	Reserve the specified IRQ for use by legacy ISA devices.
IRQ 4: [Available]	
IRQ 5: [Available]	
IRQ 7: [Available]	
IRQ 9: [Available]	
IRQ 10: [Available]	
IRQ 11: [Available]	
IRQ 15: [Available]	
F1 Help ↑↓ Select Item -/Space Change Values F9 Setup Defaults ESC Exit ↔ Select Menu Enter Select ► Sub-Menu F10 Save and Exit	

Figure 9. IRQ Reservation Submenu

Table 9: Fields, Options and Defaults for the IRQ Reservation Submenu of the PCI Configurations Submenu of the Advanced Menu

Menu Field	Options	Default	Description
IRQ 3:	<ul style="list-style-type: none"> Available Reserved 	[Available]	Reserves IRQ 3. If Reserved is selected, the BIOS reserves IRQ 3 for use by legacy ISA devices and does not use it for embedded PCI or ISA devices. IRQ 3 is removed from the IRQ bitmap in the PCI IRQ routing table.
IRQ 4:	<ul style="list-style-type: none"> Available Reserved 	[Available]	Reserves IRQ 4.
IRQ 5:	<ul style="list-style-type: none"> Available Reserved 	[Available]	Reserves IRQ 5.
IRQ 7:	<ul style="list-style-type: none"> Available Reserved 	[Available]	Reserves IRQ 7.

Table 9: Fields, Options and Defaults for the IRQ Reservation Submenu of the PCI Configurations Submenu of the Advanced Menu

Menu Field	Options	Default	Description
IRQ 9:	<ul style="list-style-type: none">▪ Available▪ Reserved	[Available]	Reserves IRQ 9.
IRQ 10:	<ul style="list-style-type: none">▪ Available▪ Reserved	[Available]	Reserves IRQ 10.
IRQ 11:	<ul style="list-style-type: none">▪ Available▪ Reserved	[Available]	Reserves IRQ 11.
IRQ 15:	<ul style="list-style-type: none">▪ Available▪ Reserved	[Available]	Reserves IRQ 15.

USB Features Submenu of the Advanced Menu

The USB Features Submenu configures the system for use with a USB floppy drive.

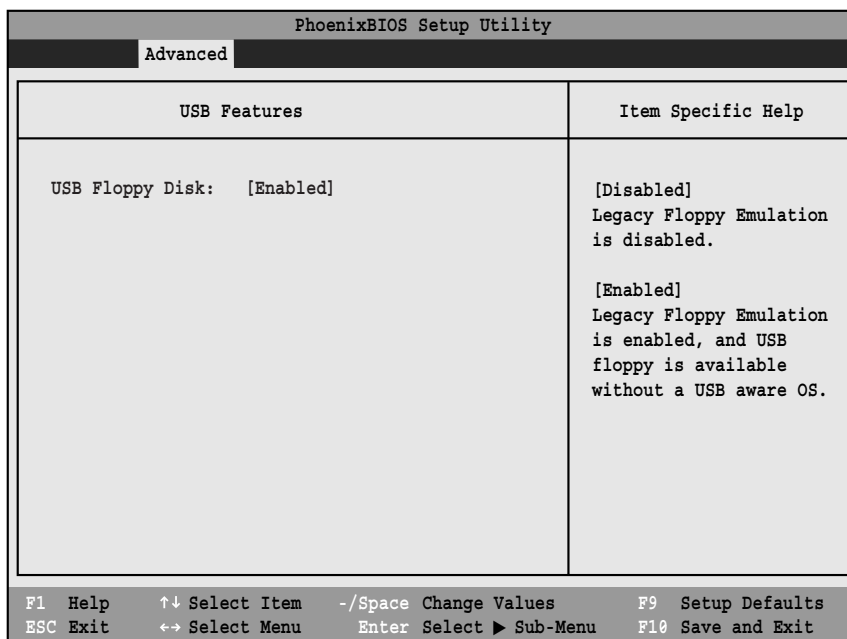


Figure 10. USB Features Submenu

Table 10: Fields, Options and Defaults for the USB Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
USB Floppy Disk:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	When Enabled is selected, Legacy Floppy Emulation is enabled and the USB floppy drive is available without a USB aware OS. When Disabled is selected, Legacy Floppy Emulation is disabled.

Event Logging Submenu of the Advanced Menu

The Event Logging Submenu configures event logging features for DMI events.

PhoenixBIOS Setup Utility			
Advanced			
Event Logging		Item Specific Help	
Event Log Capacity:	Space Available	Press <Enter> key to view the contents of the event log.	
Event Log Validity:	Valid		
View Event Log:	[Enter]		
Event Logging:	[Enabled]		
System Boot Event:	[Disabled]		
Clear All Event Logs:	[No]		
Mark Events as Read:	[Enter]		
F1 Help	↑↓ Select Item	-/Space Change Values	F9 Setup Defaults
ESC Exit	↔ Select Menu	Enter Select ► Sub-Menu	F10 Save and Exit

Figure 11. Event Logging Submenu

Table 11: Fields, Options and Defaults for the Event Logging Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Event Log Capacity:		Space Available	Display only
Event Log Validity:		Valid	Display only
View Event Log:	▪ Enter	[Enter]	Allows you to view content of event log
Event Logging:	▪ Disabled ▪ Enabled	[Enabled]	Turns event logging on and off for all DMI events.
System Boot Event:	▪ Disabled ▪ Enabled	[Disabled]	Turns event logging on and off for DMI system boot events.
Clear All Event Logs:	▪ No ▪ Yes	[No]	When set to [Yes] all event logs will be cleared at next boot.
Mark Events as Read:	▪ Enter	[Enter]	Allows you to make all events currently in the event log as having been read.

SECURITY MENU – SETTING THE SECURITY FEATURES

The Security menu allows you to set up the data security features of your notebook to fit your operating needs and to view the current data security configuration. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through The Setup Utility* on page 2 for more information.)

The following tables show the names of the menu fields for the Security menu and its submenus, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use. The default condition is no passwords required and no write protection.



POINT

If you set a password, write it down and keep it in a safe place. If you forget the password, you will have to contact your support representative to regain access to your secured functions and data.



CAUTION

Entering a password incorrectly 3 times in a row will cause the keyboard and mouse to be locked out and the warning [System Disabled] to be displayed. If this happens restart the computer by turning off and on the power with the power switch and use the correct password on reboot.



POINT

If you make an error when re-entering the password a [Warning] will be displayed on the screen. To try again press the Enter key and then retype the password. Press the Esc key to abort the password setting process.



CAUTION

If Password On Resume is Enabled and Password On Boot is Disabled you will not have to type your password upon resuming the system from the Suspend or Save-to-Disk modes. Password On Resume will work only if Password On Boot is enabled.



POINT

Boot sector protection must be set to [Normal] to install or upgrade an operating system.

PhoenixBIOS Setup Utility		
Main	Advanced	Security
Supervisor Password Is:	Clear	Item Specific Help Press [Enter] key to set Supervisor Password to enable any password features. Then password entry is required to enter BIOS Setup.
User Password Is:	Clear	
Set Supervisor Password	[Enter]	
Set User Password	[Enter]	
Minimum User Password Length:	[0]	
Password on Boot:	[Disabled]	
Password on Resume:	[Disabled]	
Boot from Removable Media:	[All]	
Floppy Disk Access:	[All]	
▶ Hard Disk Security		
▶ Owner Information		
Hard Disk Boot Sector:	[Normal]	
F1 Help ↑↓ Select Item -/Space Change Values F9 Setup Defaults ESC Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit		

Figure 12. Security Menu

Table 12: Fields, Options and Defaults for the Security Menu

Menu Field	Options	Default	Description
Supervisor Password is:	—	Clear	A display-only field. Set is displayed when the system supervisor password is set and Clear when it is not.
User Password is:	—	Clear	A display-only field. Set is displayed when the general user password is set, and Clear when it is not.
Set Supervisor Password	—	[Enter]	Sets, changes or cancels the Supervisor Password. The Supervisor Password may be up to seven characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a Supervisor Password is set it must be used to access the BIOS setup utility.
Set User Password	—	[Enter]	This field can only be accessed if the Supervisor Password is set. Sets, changes or cancels the User Password. The User Password may be up to seven characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a User Password is set it must be used to access the BIOS setup utility.
Minimum User Password Length:	—	[0]	

Table 12: Fields, Options and Defaults for the Security Menu

Menu Field	Options	Default	Description
Password on Boot:	<ul style="list-style-type: none"> ▪ Disabled ▪ First Boot ▪ Every Boot 	[Disabled]	When set to Disabled, no password is required. When set to First Boot, a password (User or Supervisor) is required after the Power On Self Test (POST) before the operating system is read from a disk. If Every Boot is set, a password (User or Supervisor) is required after the Power On Self Test (POST) every time the system is booted (before the operating system is read from the disk).
Password on Resume:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Disabled]	When set to Enabled, a password (User or Supervisor) is required before the operating system will resume. When set to Disabled no password is required. If no Supervisor Password is set this feature is not available and no password is required.
Boot from Removable Media:	<ul style="list-style-type: none"> ▪ All ▪ Supervisor only 	[All]	Enable password allows supervisor access only.
Floppy Disk Access:	<ul style="list-style-type: none"> ▪ All ▪ Supervisor only 	[All]	Enable password allows supervisor access only.
Hard Disk Security:	—	—	Configures hard disk security features
Owner Information:	—	—	Sets Owner information.
Hard Disk Boot Sector:	<ul style="list-style-type: none"> ▪ Normal ▪ Write Protected 	[Normal]	Sets protection mode for hard disk drive.

Hard Disk Security Submenu of the Security Menu

The Hard Disk Security Submenu is for configuring hard disk security features.

PhoenixBIOS Setup Utility			
Security			
Hard Disk Security		Item Specific Help	
Primary Master:	[Disabled]	[Disabled] The feature is disabled.	
Primary Slave:	[Disabled]	[Enabled] The hard disk is locked with the password. Data in the locked disk cannot be read on any systems other than the original system on which it is locked or systems that have the identical password setting.	
F1 Help	↑↓ Select Item	-/Space Change Values	F9 Setup Defaults
ESC Exit	↔ Select Menu	Enter Select ► Sub-Menu	F10 Save and Exit

Figure 13. Hard Disk Security Submenu

Table 13: Fields, Options and Defaults for the Hard Disk Security Submenu of the Security Menu

Menu Field	Options	Default	Description
Primary Master:	<ul style="list-style-type: none"> Disabled Enabled 	[Disabled]	Disabled: No password protection. Enabled: The hard disk is locked with the password. Data in the locked disk cannot be read on any systems other than the original system on which it is locked or systems that have the identical password setting.
Primary Slave:	<ul style="list-style-type: none"> Disabled Enabled 	[Disabled]	

Owner Information Submenu of the Security Menu

The Owner Information Submenu is for setting owner information.

PhoenixBIOS Setup Utility	
Security	
Owner Information	Item Specific Help
Owner Information Is: Clear Set Owner Information [Enter] Foreground Color: [Gray] Background Color: [Black]	Press [Enter] key to set owner information. Up to 80 characters can be set. Available characters are ASCII codes from 32 through 126. The owner information is always displayed at the bottom line of the screen during POST.
F1 Help ↑↓ Select Item -/Space Change Values F9 Setup Defaults ESC Exit ↔ Select Menu Enter Select ► Sub-Menu F10 Save and Exit	

Figure 14. Owner Information Submenu

Table 14: Fields, Options and Defaults for the Owner Information Submenu of the Security Menu

Menu Field	Options	Default	Description
Owner Information Is:	—	Clear	Display only.
Set Owner Information:	—	[Enter]	Field to write owner information (i.e., name).
Foreground Color:	<ul style="list-style-type: none"> ▪ Black ▪ Blue ▪ Green ▪ Cyan ▪ Red ▪ Magenta ▪ Brown ▪ White ▪ Gray ▪ Light Blue ▪ Light Green ▪ Light Cyan ▪ Light Red ▪ Light Magenta ▪ Yellow ▪ Bright White 	[Gray]	Select a color for the foreground.

Table 14: Fields, Options and Defaults for the Owner Information Submenu of the Security Menu

Menu Field	Options	Default	Description
Background Color:	<ul style="list-style-type: none"> ▪ Black ▪ Blue ▪ Green ▪ Cyan ▪ Red ▪ Magenta ▪ Brown ▪ White ▪ Gray ▪ Light Blue ▪ Light Green ▪ Light Cyan ▪ Light Red ▪ Light Magenta ▪ Yellow ▪ Bright White 	[Black]	Select a color for the background.

Exiting from the Security Menu

When you have finished setting the parameters on the Security Menu, you can either exit from setup utility or move to another menu. If you wish to exit from setup utility, press the Esc key to go to the Exit Menu. If you wish to move to another menu, use the cursor keys.

POWER MENU – SETTING POWER MANAGEMENT FEATURES

The Power menu allows you to set and change the power management parameters. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through The Setup Utility on page 2 for more information.*)

The following tables show the names of the menu fields for the Power menu and its submenus, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use.



POINT

In Windows 98 Auto-suspend Timeout, Hard Disk Timeout, and Video Timeout features are available exclusively through the operating system.



POINT

When resuming from a Save-to-Disk suspension there will be a delay while the contents of system memory and operating parameters are loaded from the hard drive.



CAUTION

In Save-to-Disk mode there is no indication on the Status Indicator to let you know you are suspended rather than shut off from the power switch. You may want to make a habit of always trying the Suspend/Resume button before using the power switch.



CAUTION

Resume on Modem ring when enabled will draw power from the bridge battery alone when your system is running off battery power. This may potentially drain your bridge battery. Disabling Resume on Modem ring will prevent this from happening.

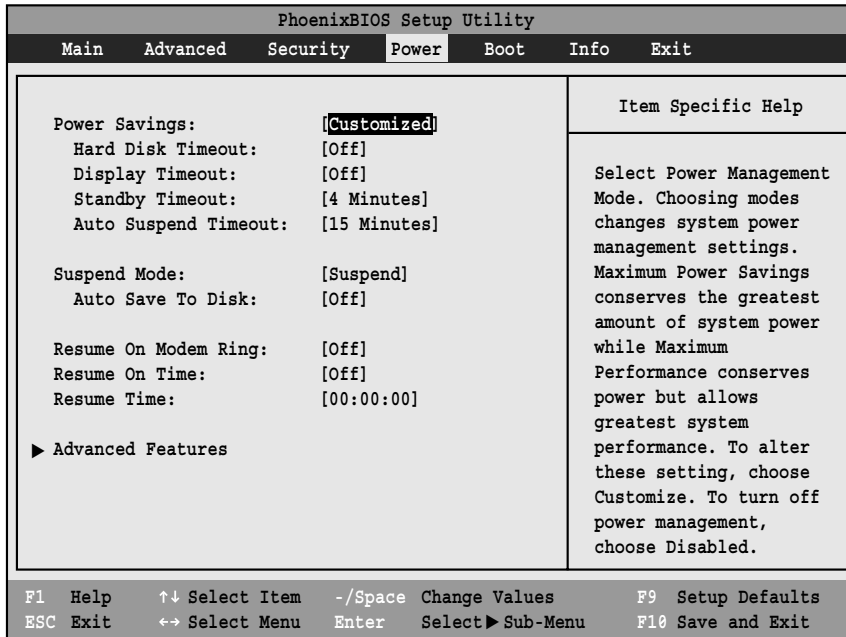


Figure 15. Power Menu

Table 15: Fields, Options and Defaults for the Power Menu

Menu field	Options	Default	Description
Power Savings:	<ul style="list-style-type: none"> Disabled Customized Maximum Power Savings Maximum Performance 	[Customized]	Sets the power savings parameters to a factory installed combination of parameters, a custom set of parameters set by you or no power saving features.
Hard Disk Timeout:	<ul style="list-style-type: none"> Off 30 seconds to 20 Minutes 	[Off]	Sets the length of time that the hard drive can be inactive before your notebook automatically turns off the power to the hard drive controller and drive motor. If you choose a factory installed combination of parameters this field will display the setting. If you choose to customize the parameters you will be able to set this yourself. The options available vary from Off, which has no inactivity shutoff, to 20 minutes.
Display Timeout:	<ul style="list-style-type: none"> Off 2 to 20 Minutes 	[Off]	Sets the length of time without any user input device activity before the display is turned off. If you choose a factory combination of parameters, this field will display the setting. If you choose to customize the parameters, you will be able to set this yourself. Off has no inactivity shutoff.
Standby Timeout:	<ul style="list-style-type: none"> Off 1 to 16 Minutes 	[4 Minutes]	Sets the length of time without any user input device activity before the CPU is set to half speed and the display and the hard drive are turned off. If you choose a factory combination of parameters this field will display the setting. If you choose to customize the parameters you will be able to set this yourself.

Table 15: Fields, Options and Defaults for the Power Menu

Menu field	Options	Default	Description
Auto Suspend Timeout:	<ul style="list-style-type: none"> ■ Off ■ 5 to 60 minutes 	[15 Minutes]	Sets the length of time without any I/O activity before your notebook goes into Suspend mode. If you choose a factory combination of parameters this field will display that setting. If you choose to customize the parameters you will be able to set this yourself. Off has no inactivity suspension.
Suspend Mode:	<ul style="list-style-type: none"> ■ Suspend ■ Save to Disk 	[Suspend]	Sets the state of suspension used. If you choose Suspend, operation will be suspended. Power will still be supplied to system memory, but everything else will be powered down or will enter a very low power state. If you choose Save-to-Disk, your notebook will save all of system memory and operating parameters to the hard drive before turning your notebook to the pseudo-off condition.
Auto Save to Disk:	<ul style="list-style-type: none"> ■ Off ■ After 1 Hour 	[Off]	When set to <i>After 1 Hour</i> your notebook will automatically save all of system memory and the operating parameters to the hard drive and go to the pseudo-off if you leave your notebook in Suspend mode for an hour.
Resume On Modem Ring:	<ul style="list-style-type: none"> ■ Off ■ On 	[Off]	Sets whether or not to Resume from a suspension state when a message is received by telephone line. This feature will not operate if the Save-to-Disk mode is enabled. This feature applies to internal and external modems.
Resume On Time:	<ul style="list-style-type: none"> ■ Off ■ On 	[Off]	Sets whether or not to resume from a suspension state at a designated time. This feature is available from either the Suspend mode or the Save-to-Disk mode.
Resume Time:	<ul style="list-style-type: none"> ■ 00:00:00 to 23:59:59 	[00:00:00]	Sets the designated time, on a 24-hour clock, when the notebook is to automatically resume operation from the Suspend state. The format of the clock setting is hours:minutes:seconds. Each segment of the time is set separately, either by incrementing or by typing in the numbers. You move between the segments with the [Tab] key or the [Shift]+[Tab] keys. This only applies when Resume on Time is set to On.
Advanced Features:	—	—	When selected, opens the Advanced Features submenu which allows setting additional power saving parameters.

Factory Installed Values for Power Saving Profiles

	Hard Disk Timeout	Display Timeout	Standby Timeout	Auto Suspend Timeout
Customized:	Off	Off	4 Minutes	15 Minutes
Maximum Power Savings:	30 Seconds	2 Minutes	1 Minute	5 Minutes
Maximum Performance:	Off	Off	Off	15 Minutes
Disabled:	Off	Off	Off	Off
Sample Customized Profile: (To get even better battery life keep the display and volume settings as low as possible and use the sample customized profile.)	2 Minutes	1 Minute	1 Minute	5 Minutes

Advanced Features Submenu of the Power Menu

The Advanced Features submenu is for setting some non-time related power saving parameters.

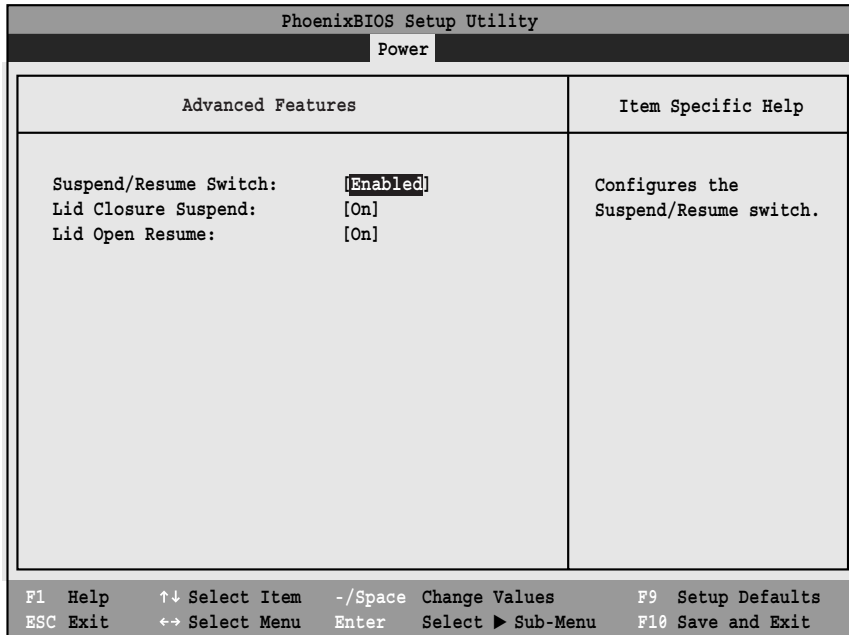


Figure 16. Advance Features Submenu

Table 16: Fields, Options and Defaults for the Advanced Features Submenu of the Power Menu

Menu Field	Options	Default	Description
Suspend/Resume Switch:	<ul style="list-style-type: none"> Disabled Enabled 	[Enabled]	Sets the function of the Suspend/Resume button when your notebook is in an active state. The resume function cannot be disabled as it works regardless of any other settings.
Lid Closure Suspend:	<ul style="list-style-type: none"> Off On 	[On]	Enables and disables having closure of the Display panel put your notebook in Suspend mode.
Lid Open Resume:	<ul style="list-style-type: none"> Off On 	[On]	Enables and disables having opening the Display panel acting as an automatic resume.

Exiting from Power Menu

When you have finished setting the boot parameters with the Power menu, you can either exit from the setup utility or move to another menu. If you wish to exit from the setup utility press the Esc key to go to the Exit menu. If you wish to move to another menu, use the cursor keys.

BOOT MENU – SELECTING THE OPERATING SYSTEM SOURCE

The Boot Menu is used to select the order in which the BIOS searches sources for the operating system. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through The Setup Utility* on page 2 for more information.)

The following tables show the names of the menu fields for the Boot menu and its submenu, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use.

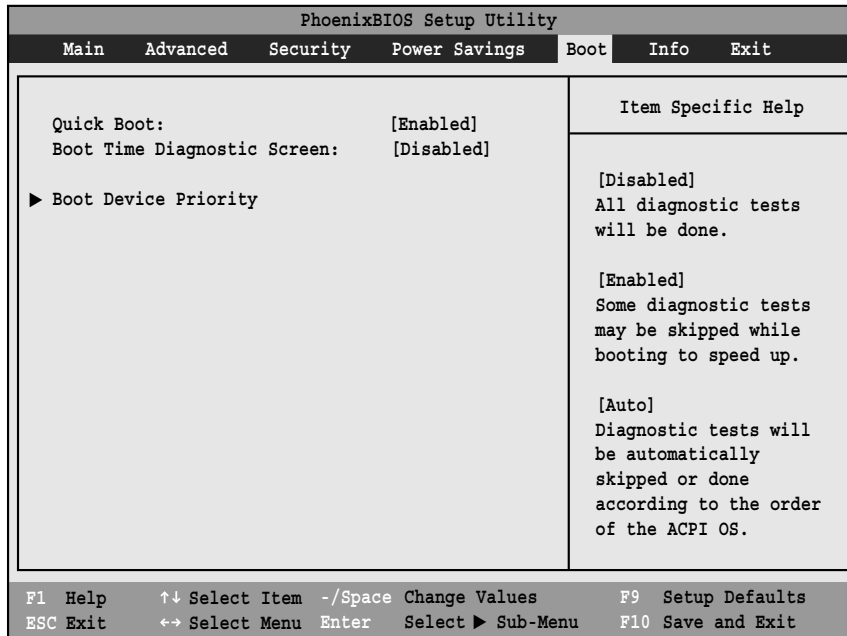


Figure 17. Boot Menu

Table 17: Fields, Options and Defaults for the Boot Menu

Menu Field	Options	Default	Description
QuickBoot Mode:	<ul style="list-style-type: none"> Disabled Enabled Auto 	[Enabled]	Turns on and off booting with a truncated set of Power On Self Test. (Fewer tests mean faster turn on.)
Boot-time Diagnostic Screen:	<ul style="list-style-type: none"> Disabled Enabled 	[Disabled]	Turns on and off display of test results instead of Fujitsu logo screen during Power On Self Test.
Boot Device Priority	<ul style="list-style-type: none"> Selects the Boot Device Priority submenu 	—	This menu allows setting up the source for the operating system.

Boot Device Priority Submenu of the Boot Menu

The Boot Device Priority Submenu is for setting the order of checking of sources for the operating system.



CAUTION

Be careful of the operating environment when booting from a CD-ROM or you may overwrite files by mistake.



CAUTION

A bootable CD-ROM may have either a floppy disk format or a hard drive format. When the bootable CD-ROM is used, the drive allocations change automatically without changing the BIOS setup. If a floppy disk format CD-ROM is used, the CD-ROM becomes Drive A. The CD-ROM will only take drive C: (hard drive format) if the internal hard drive is not present or is disabled. The bootable CD-ROM can never use a C: designation if a formatted internal hard drive is present, since the C: designator is always reserved for the internal hard drive. The boot sequence ignores the new drive designations; however, your application software will use the new designations.

PhoenixBIOS Setup Utility			
		Boot	
Boot Device Priority		Item Specific Help	
Floppy Disk Drive +Hard Disk Drive ATAPI CD-ROM Drive		The top device has the highest priority. <Enter> expands or collapses devices with a + or -. <Ctrl+Enter> expands all. <↑> or <↓> selects a device. <+>/<Space> or <-> moves the device up or down. <Shift+1> enables or disables a device.	
F1 Help	↑↓ Select Item	-/Space Change Values	F9 Setup Defaults
ESC Exit	↔ Select Menu	Enter Select ► Sub-Menu	F10 Save and Exit

Figure 18. Boot Device Priority Submenu

Table 18: Fields, Options and Defaults for the Boot Device Priority Submenu of the Boot Menu

Menu Field	Options	Default	Description
Floppy Disk Drive	—	—	The boot selections determine the order in which the BIOS searches for the operating system during a startup sequence. To change the order highlight one source by using the [up] or [down] cursor keys and then press the [+] or [-] key to change the order number for that source. Be sure to save your changed order when you exit the BIOS setup utility.
+Hard Disk Drive	—	—	—
ATAPI CD-ROM Drive	—	—	—

Exiting from Boot Menu

When you have finished setting the boot parameters with the Boot menu, you can either exit from the setup utility or move to another menu. If you wish to exit from the setup utility press the Esc key to go to the Exit menu. If you wish to move to another menu, use the cursor keys.

INFO MENU - DISPLAYS BASIC SYSTEM INFORMATION

The Info menu is a display only screens that provides the configuration information for your notebook.

The following table shows the names of the menu fields for the Info menu and the information displayed in those fields. These fields are for information purposes only, and cannot be modified by the user.



POINT

The information, including CPU type and speed, and total memory, displayed on this screen varies according to the unit you purchased.

PhoenixBIOS Setup Utility						
Main	Advanced	Security	Power Savings	Boot	Info	Exit
BIOS Version: 1.03 BIOS Date: 09/25/2000 BIOS Area: E000h - FFFFh CPU Type: Celeron(TM) processor CPU Speed: 550 MHz L1 Cache: 32 KB L2 Cache: 128 KB Total Memory: 64 MB Onboard Memory: 64 MB SDRAM Memory Slot: None					Item Specific Help	
F1 Help ↑↓ Select Item -/Space Change Values F9 Setup Defaults ESC Exit ↔ Select Menu Enter Select ► Sub-Menu F10 Save and Exit						

Figure 19. Info Menu

Table 19: Fields, Options and Defaults for the Info Menu

Note that some of the parameters reflected below may be different from those on your screen, depending upon system configuration.

Menu Field	Options	Default	
BIOS Version:	—	1.03	—
BIOS Date:	—	09/25/2000	—
BIOS Area:	—	E000h – FFFFh	—
CPU Type:	—	Intel Celeron(TM) processor	—
CPU Speed:	—	550 MHz	—
L1 Cache:	—	32 KB	—
L2 Cache:	—	128 KB	—
Total Memory:	—	64 MB	—
Onboard:	—	64 MB SDRAM	—
Memory Slot:	—	None	—

EXIT MENU – LEAVING THE SETUP UTILITY

The Exit Menu is used to leave the setup utility. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through The Setup Utility* on page 2 for more information.)

The following table shows the names of the menu fields for the Exit menu, the default settings and a description of the field's function and any special information needed to help understand the field's use.

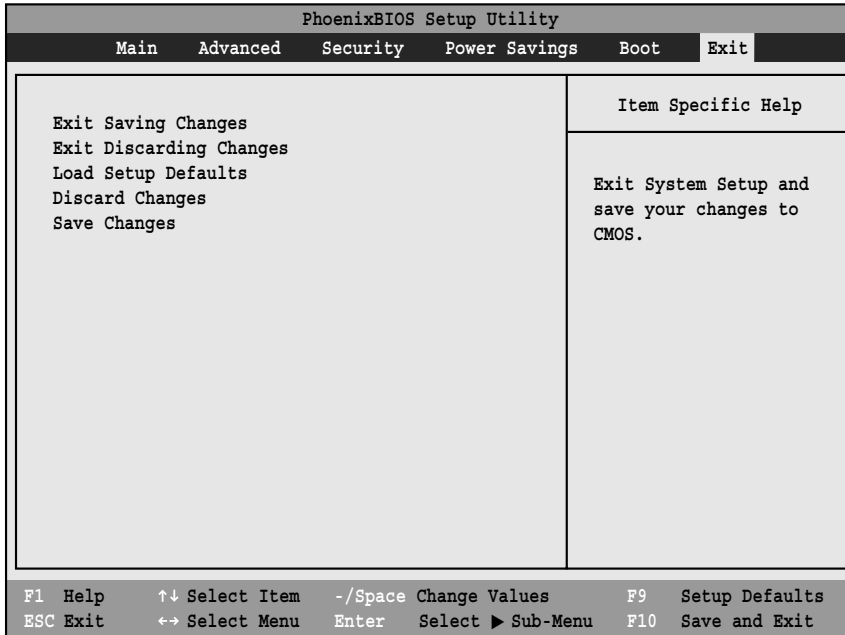


Figure 20. Exit Menu

Table 20: Fields, Options and Defaults for the Exit Menu

Menu Field	Options	Default	Description
Exit Saving Changes	—	—	Exit Saving Changes and Exit will store all the entries on every menu of the setup utility to the BIOS memory and then exit the setup utility. A confirmation message <i>Save Configuration changes and exit now? [Yes] [No]</i> will be displayed.
Exit Discarding Changes	—	—	Selecting Exit Discarding Changes and Exit will exit the setup utility with out writing to the BIOS memory. A setup warning message <i>Configuration has not been saved! Save before exiting? [Yes] [No]</i> will be displayed when your settings have changed. When the BIOS recognizes the Exit Discarding Changes selection it will load the operating system and begin operation.

Table 20: Fields, Options and Defaults for the Exit Menu

Menu Field	Options	Default	Description
Load Setup Defaults	—	—	Selecting Load Setup Defaults will load the factory preset default values for all menu fields, then display the message <code>Load default configuration now? [Yes] [No]</code> . When confirmed the setup utility will return to the Exit Menu. To return to another menu follow the directions in the Navigating Through the Setup Utility Section.
Discard Changes	—	—	Selecting Discard Changes will load the previous values in BIOS memory for all menu fields. The message <code>Load previous configuration now? [Yes] [No]</code> will be displayed. When confirmed the setup utility will return to the Exit menu. To return to another menu, follow the directions in the Navigating Through the Setup Utility Section.
Save Changes	—	—	Selecting Save Changes will cause the new settings in all menus to be written to the BIOS memory. The message <code>Save configuration changes now? [Yes] [No]</code> will be displayed. When confirmed, the setup utility will return to the Exit menu. To return to another menu, follow the directions in the Navigating Through the Setup Utility section.